**Session 5- Constructions**

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| Time | Agenda | Vocab | Resources |
| 4:00 | • Welcome    • Go over homework & questions |  |  |
|  | * Tonight’s lesson is all constructions using a protractor and a straight edge. You are encouraged not to use a ruler but make a straight edge out of card stock or poster board. This will discourage participants from trying to measure and truly learn to construct using a protractor. * The lesson is not divided into time periods - move along at a pace that works for your participants. * Each construction is linked to a website that shows step-by-step instructions and also has an animated demonstration. * After the first two constructions, the other constructions could be presented in several ways. (1)Have the participants try to construct without any instruction from you. (2) Divide the class into three groups. Each group should become an expert on one of the constructions. Then get back in groups of three, one from each construction, and teach the different constructions to your group. (3) As the instructor you can demonstrate as before. * Worksheets have **not** been provided. Have the participants draw the original and then construct a copy. |  | Protractor  Straight edge |
|  | * Copy a line segment   <http://www.mathopenref.com/constcopysegment.html> |  | Computer |
|  | * Copy an angle   <http://www.mathopenref.com/constcopyangle.html> |  |  |
|  | * Copy a triangle   <http://www.mathopenref.com/constcopytriangle.html> |  |  |
|  | * Construct a triangle given 2 angles and a side   <http://www.mathopenref.com/consttriangleasa.html> |  |  |
|  | * Construct a triangle given 2 sides and an angle   <http://www.mathopenref.com/consttrianglesas.html> |  |  |
|  | * Construct a parallel line   <http://www.mathopenref.com/constparallel.html> |  |  |
|  | * Construct a perpendicular line   + Bisector   <http://www.mathopenref.com/constbisectline.html>   * + To a point on a line   <http://www.mathopenref.com/constperplinepoint.html>   * + To a point off the line   <http://www.mathopenref.com/constperpextpoint.html> |  |  |
|  | * Construct a circumscribed circle about a triangle   <http://www.mathopenref.com/constcircumcenter.html>  The point found is the center of the circle. All vertices of the triangle should be equidistance from this center point. Using the protractor measure from the center point to any angle vertex (of the triangle) and draw the circumscribed circle. |  |  |
|  | * Construct an inscribed circle within a triangle   <http://www.mathopenref.com/constincenter.html>  The point found is the center of the circle. Inscribe a circle using the center point. |  |  |
|  | * REFLECTION JOURNAL * Homework: Practice 2 or three construction that you found challenging. * No Reading tonight |  |  |